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FROM

Dr Henry Wilde

24 Dec 1900

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Correspondence.

IN THE MATTER OF

THE SOCIETY OF ARTS

AND

HENRY WILDE, D.Sc., F.R.S.

ON THE AWARD TO HIM

OF

THE ALBERT MEDAL, 1900,

AND ON THE

INVENTION OF THE DYNAMO-ELECTRIC MACHINE.

MANCHESTER:
H. RAWSON & CO., PRINTERS, NEW BROWN STREET.
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Dr Henry Wilde

PREFACE.

THE great progress made during recent years in the means of generating electricity will excite in many minds a lively interest respecting the genesis of the *Dynamo-electric Machine,* which, in its various applications to the arts of life, now figures so largely as a factor in modern civilisation. The following correspondence will, it is thought, be of use to those desiring information on the subject, but who, from various circumstances, may not be able to examine for themselves the documents and publications referred to therein.

Since the date of the award to me of the Albert Medal of the Society of Arts, I have found that the apocryphal statement (page 20) that the term *dynamo-electric machine* was first used by Werner Siemens in his communication to the Berlin Academy of Sciences, January 1867, and applied to the machine of his invention, has, unfortunately, been reproduced in Dr. Murray's Oxford Dictionary of the English language under the word "DYNAMO."

That the term *dynamo-electric machine* is not strictly logical in its application by electricians exclusively to machines based on the principle of my discovery, as formulated in the terms of the award to me of the Albert Medal, is fully recognised by authorities on scientific nomenclature. Now, however, that the term, with this signification, is incorporated in the English and other languages, and was expressly applied by Brooke, its inventor, to denote the machine of my invention, it is no longer competent to any one to go behind, or to alter the original designation of Brooke, as set forth in his communication to the Royal Society in March 1867.

That my contributions to electrical science and its practical applications are but steps in the world's scientific and industrial evolution, no one is more sensible

of than myself. Nor am I unmindful of the great advances which have since been made by others in the same field of invention. It is these inventors, and the army of industrious workers in various countries, that are now inaugurating the electrical millennium prevised in the concluding words of my communication to the *Philosophical Magazine* in 1873, "On some Improvements in Electro-magnetic Induction [*dynamo*] Machines."—"That the transformation of mechanical energy into other modes of force, on so large a scale and by means so simple, will find new and much more important applications than that above mentioned [the electro-deposition of metals] is my firm conviction. Even now several of such applications begin to foreshadow themselves, by which the electro-magnet, as a source of electricity, is destined hereafter to live in the lives of the millions of mankind when the memory of its origin, except with the curious and the learned, shall be forgotten."

HENRY WILDE.

ALDERLEY EDGE,
NOVEMBER 26th, 1900.

[*Copy.*]

SOCIETY OF ARTS,
JOHN STREET, ADELPHI,
LONDON, W.C., *June 15th, 1900.*

DEAR SIR,

It is my pleasant duty to communicate to you the information that the Council of the Society of Arts, with the approval of their President, H.R.H. the Prince of Wales, have conferred upon you the Albert Medal of the Society, "for the discovery and practical demonstration of the indefinite increase of the magnetic and electric forces from quantities indefinitely small." The Council recognise the fact that your discovery is the principle on which the modern dynamo is based, and they believe that its value may be fitly recognised by the award they have now made to you.

At some future period, I cannot doubt that His Royal Highness will appoint a date for the presentation of the Medal to you, as he has done in former cases. I cannot, however, say when this date may be fixed.

The Albert Medal was established in the year 1862 in commemoration of H.R.H. the Prince Consort, who was for many years President of the Society, and has been awarded annually since that date to a number of scientific men of the very highest distinction in this and other countries.

I enclose for your information a list of the previous recipients, and I trust that it may be agreeable to you to have your name added to it.

Yours faithfully,

(Signed) H. T. WOOD,
Secretary.

HENRY WILDE, Esq., F.R.S.,
The Hurst,
Alderley Edge, Cheshire.

[*Copy.*]

ALDERLEY EDGE,
CHESHIRE,
June 18*th*, 1900.

DEAR SIR,

I have to acknowledge the receipt of your communication of the 15th instant, informing me that the Council of the Society of Arts have decided to confer upon me the Albert Medal of the Society.

It is a cause of much satisfaction to me that the Council should have considered my scientific work of sufficient importance to warrant the enrolment of my name with those of the distinguished recipients of the Albert Medal since its foundation in 1862. I notice, however, with surprise, that while the award of the Council is "for the discovery and practical demonstration of the indefinite increase of the magnetic and electric forces from quantities indefinitely small," no mention is made of my invention of the dynamo-electric machine and its successful application by me to electric lighting and to the electro-deposition of metals from their solutions.

Considering that the principal object of the Society is to give encouragement to Arts, Manufactures, and Commerce, which object is prominently set forth in most of the awards of the Albert Medal hitherto made, the absence of all reference to the industrial applications of my discoveries and inventions in the terms of the award is a notable omission, and, if unrectified, will effectually preclude me from accepting the honour for which I have been designated by the Council.

Enclosed are several documents, an examination of which will enable the Council to judge of the validity of the claims now submitted. I would direct special attention to the fact that the term "dynamo-electric machine" was invented by Charles Brooke, F.R.S. (*Proc. Roy. Soc.*, Vol. xv. (1867), p. 409), who applied it expressly to the machine described in my paper read before the Royal Society, March 1866, in which paper the principle of the indefinite increase of the magnetic and electric forces from quantities indefinitely small was first announced.

That my contributions to electrical science are not laboratory experiments only, as implied by the proposed terms of the award, but substantial contributions to the advancement of Arts and Manufactures, will be seen from the enclosed copy of my letter to the Council of the Institution of Electrical Engineers, of November 1899; also from the list of licensees from whom I have received large sums of money during a series of years for the right to use my patented inventions for generating electricity. It is no detraction from the merits of my inventions of the dynamo and search-light equipment that the older forms have been superseded by improved types, when the principles involved in such improvements remain the same as in the originals.

I am,
Faithfully yours,
(Signed) HENRY WILDE.

SIR H. TRUEMAN WOOD,
Secretary of the Society of Arts.

[*Copy.*]

SOCIETY OF ARTS,
JOHN STREET, ADELPHI,
LONDON, W.C., *June* 19*th*, 1900.

DEAR SIR,

I have to acknowledge the receipt of your letter of the 18th, which shall be laid before my Council when it meets on Monday next.

Yours faithfully,
(Signed) H. T. WOOD,
Secretary.

HENRY WILDE, Esq., F.R.S.

[*Copy.*]

21*st June,* 1900.

Sir Henry Trueman Wood,
Secretary of the Society of Arts.
John Street, Adelphi,
London, W.C.

Dear Sir,

Mr. Henry Wilde, of Alderley Edge, has seen us with reference to your letter to him of the 15th inst., his answer of the 18th inst., and your reply of the 19th inst.

Mr. Wilde hopes that the Society will think proper to word the formal statement of the work by him, in recognition of which the Albert Medal is proposed to be awarded to him, in the terms indicated below, and so enable him to accept the honour which the Society offers to him.

The terms proposed by him are as follows:—

> "For the discovery and practical demonstration of the indefinite increase of the magnetic and electric forces from quantities indefinitely small,—his invention of the dynamo-electric machine, founded on this discovery, and its application by him to the production of the electric searchlight, and to the electro-deposition of metals from their solutions."

We should imagine that this wording of the award would in fact commend itself to the Council, for, as the wording is at present proposed by them, the award would be for an abstract scientific discovery, without any reference to its application to the promotion of Arts, Manufactures, or Commerce, for which the Society was established.

Mr. Wilde notices with regret that the proposed award has been communicated to, and is announced as an accomplished fact in, *The Daily News* and *The Daily Telegraph* of the 20th inst. This is, under the circumstances, most unfortunate; and, bearing in mind Mr. Wilde's letter of the 18th inst., it was very improper, and makes him anxious lest, before the matter is settled,

it should also be mentioned in the number of the Society's Journal, in which these awards are in ordinary course annually announced, and which will, we understand, be published in a week or two. Bearing in mind the permanent nature of the record, which would thus be established, Mr. Wilde considers that the omission from it of any reference to the work to which he attaches so much importance would be a serious injury to him; and he therefore asks us to write and beg of you that you will see that this does not occur.

Mr. Wilde is so apprehensive on this point that a writ has been issued against the Printers and Publishers of the Journal to restrain them from doing this; and Mr. Wilde has instructed our Mr. Williamson to come up to London and see you, if you could arrange for him to do so, early on Monday morning, before the meeting of your Council, and again after the meeting, so that he may know whether or not the alteration proposed by Mr. Wilde is accepted by your Society, and, if not, may be satisfied by you that the proposed award of the medal will not be made or be published in the Society's Journal.

We exceedingly regret that we should have to write this letter, as we recognise the delicate nature of the situation, and that the writing of a lawyer's letter in response to an offer such as has been made to our client is probably without precedent, and, to anyone who does not know the difficult position in which he is placed, would seem to be ungracious.

Kindly let us have a telegram to-morrow (Friday), to say at what time and where, on Monday morning, Mr. Williamson can see you, as he will not be at business on Saturday, and so would not see a letter received that morning.

Yours truly,

(Signed) SLATER, HEELIS, WILLIAMSON & Co.

[*Copy.*]

Society of Arts,
John Street, Adelphi,
London, W.C., *June 27th,* 1900.

Dear Sirs,

I beg leave to confirm the statement I verbally made to your Mr. Williamson on Monday last, the 25th, and to state that the Society of Arts Council have now settled the terms of the award of the Albert Medal to Mr. Henry Wilde as follows:—"For the discovery and practical demonstration of the indefinite increase of the magnetic and electric forces from quantities indefinitely small, a discovery now used in all dynamo-machines; and for its application to the production of the electric search light and to the electro-deposition of metals from their solutions."

The Council regret the action Mr. Wilde has thought fit to take in the matter, but prefer not to comment upon it.

Yours faithfully,
(Signed) H. T. WOOD,
Secretary.

Messrs. Slater, Heelis, Williamson, Colley & Tulloch,
71, Princess Street, Manchester.

[*Copy.*]

ALDERLEY EDGE,
CHESHIRE,
July 12*th*, 1900.

SIR,

My solicitors duly handed to me your letter of the 27th ult., from which I learn that the Council of the Society of Arts have now in their award of the Albert Medal coupled my abstract scientific discovery with its practical applications by me to Arts and Manufactures, in accordance with the objects for which the Society was instituted. I notice, however, that the Council still ignore my claim to the invention of the dynamo-electric machine, notwithstanding that means of information have been placed at their disposal for forming a definite judgment on the matter.

In order that my claim to this invention may be further justified before the world, I will briefly recapitulate the evidence upon which the claim is founded.

The paper announcing my discovery of the indefinite increase of the magnetic and electric forces from quantities indefinitely small, with a description of the large electro-magnetic generator by which the discovery was demonstrated, was communicated to the Royal Society by Faraday, in March 1866, and was read before the Society in the following month *(Proc. Roy. Soc.* 1866, *Phil. Trans.* 1867*)*. The electro-magnetic generator therein described was subsequently used for many years for the electro-deposition of copper from its solutions.

After the publication of the results of my investigations, it was found by Werner Siemens, Wheatstone and other electricians, that the residual or permanent magnetism of iron was sufficient for, and could be used as, the initial stage of the indefinite increase of the magnetism of my electro-magnetic generator. This happy device was described by Siemens and by Wheatstone, in separate communications, to the Royal Society in February 1867.

The *ad captandum* statement made by Siemens in his communication, and now repeated in the Report of the Council in their award to me of the Albert Medal, that permanent magnetism could be dispensed with in

the conversion of dynamical into electrical force is a fundamental error. I have shown elsewhere that the residual or permanent magnetism of my large electro-magnetic generator, as well as of those installed in central power stations, is vastly greater in amount than the magnetism of the small steel magnets used in my first experimental demonstration of the indefinite increase of the magnetic and electric forces.

In a paper communicated to the Royal Society, in March 1867, by Charles Brooke, F.R.S., the term "dynamo-electric machine" (since contracted to "dynamo") was used for the first time in the following paragraph:—"The dynamic nature of electric energy is clearly indicated by the dynamo-electric machine of Holtz, in which dynamic is directly converted into electric energy, and by the cognate machines of Wilde, Wheatstone, Siemens, and Ladd, in all of which alike there is an intervening conversion of dynamic into magnetic energy. The enormous amount of current-energy evolved in Mr. Wilde's machine, when the power of a steam engine is employed to rotate the armatures, may be judged of by the fact that a long piece of platinum wire, 0·2 in. in thickness, was seen to be disintegrated and partially fused."

Now the term dynamo-electric machine has never been used by electricians to denote the glass influence machine of Holtz, for generating static electricity, but is now applied exclusively to electro-magnetic generators of the kind specified by Brooke, the inventor of the term. Moreover, as in the order of time, my electro-magnetic generator preceded those of Siemens, Wheatstone, and Ladd, by nearly a year, my claim to the invention of the dynamo-electric machine is clearly established by the direct statement of Brooke himself, as well as indirectly by the Council in their award to me of the Albert Medal for the discovery of the principle which formed the basis of my first dynamo-electric machine and of all subsequent dynamos.

I have elsewhere drawn attention to recent partisan attempts that have been made to over-ride the designation of Brooke, by limiting the term "dynamo" to self-exciting continuous current machines, and also to call my alternating dynamos "magneto-machines," in spite of Faraday's definition that "magneto-electricity is the agency exerted by ordinary steel magnets." *Proc. Inst. Civil Engineers, Vol.* 138, *p.* 296 (1899).—*Journal Inst. Electrical Engineers, Vol.* xxix., *pp.* 3, 531, 614 (1900).

That my claims have for a long time stood in the way of Metropolitan ambitions and reputations is abundantly evident in various scientific publications since the announcement of my discovery before the Royal Society, in which publications much of my scientific work (both pure and applied) has been systematically misrepresented and ignored.

That this same spirit should have found further expression by the Society of Arts, in the absolute suppression of my inventions and their applications to arts and manufactures, which the Society was expressly instituted to encourage, is still, to say the least, a matter for regret.

Considering the peculiar circumstances under which the partial recognition of my claims has been made by the Council, it will hardly be expected that I can accept the honour conferred upon me with that feeling of gratitude which such an award would naturally call forth. I will, therefore, at some future time, let the Council know when it will be agreeable to me to receive the Albert Medal.

I am, Sir,
Faithfully yours,
(Signed) HENRY WILDE.

Sir Henry Trueman Wood,
Secretary of the Society of Arts.

[*Copy.*]

SOCIETY OF ARTS,
JOHN STREET, ADELPHI,
LONDON, W.C., *July 14th, 1900.*

DEAR SIRS,

I have received a letter from your client, Mr. Henry Wilde, on the subject of the recent award to him of the Albert Medal of this Society. Having regard to the fact that Mr. Wilde threatened legal proceedings, not only against the Society of Arts but against individuals officially connected with it, I must decline, without definite orders from my Council, to hold any further communication direct with Mr. Wilde. May I ask you, therefore, kindly to communicate to him the fact that I have received his letter, and will submit it to my Council, if they think it necessary to consider it?

Perhaps also it would be as well if you would kindly suggest to Mr. Wilde, that he should continue the course he commenced by letting any further communications between himself and the Society pass through the hands of his solicitors. This is, I believe, only the ordinary and courteous practice.

Yours faithfully,

(Signed) H. T. WOOD,
Secretary.

Messrs. SLATER, HEELIS, WILLIAMSON,
COLLEY & TULLOCH,
71, Princess Street, Manchester.

[*Copy.*]

71, PRINCESS STREET,
MANCHESTER,

20th July, 1900.

SIR HENRY TRUEMAN WOOD,

DEAR SIR,

We have seen Dr. Wilde on your letter to us of the 14th instant.

As regards the threatened legal proceedings, we must remind you that the award had been resolved upon on terms upon which Dr. Wilde refused to accept it; that his refusal to do so had been communicated to you; and that subsequently to the receipt by you of this communication the award had been published, in the terms originally proposed, but objected to by Dr. Wilde, in the London papers, and as it afterwards turned out, had actually been prematurely published in your Society's official Journal.

If your Society had foreborne publishing the award on terms objected to by Dr. Wilde, there would have been no thought of Chancery proceedings for which there would obviously have been no necessity.

In reply to the concluding paragraph of your letter, Dr. Wilde commenced his communications by writing to you himself. We were only introduced into the business when legal proceedings were commenced, and these being now ended, it would be unusual, and we think undesirable, that we should act further in the matter, unless we are instructed so to do by Dr. Wilde.

Yours truly,

(Signed) SLATER, HEELIS, WILLIAMSON & CO.

[*Copy.*]

SOCIETY OF ARTS,
JOHN STREET, ADELPHI,
LONDON, W.C., *July 24th, 1900.*

SIR,

I am instructed by the President and the Council of the Society of Arts to inform you, with reference to your letter of the 12th inst., that they are much surprised and dissatisfied at the manner in which the award of the Albert Medal has been received by you. They further desire me to say that, inasmuch as the last sentence of your letter seems to leave it uncertain whether you propose to receive the medal or not, they will be obliged to you if you will state definitely whether or no you do wish to receive it. If you do, I have instructions to send it to you at once.

I am, Sir,
Your obedient Servant,
(Signed) H. T. WOOD,
Secretary.

HENRY WILDE, Esq., F.R.S.,
The Hurst, Alderley Edge, Cheshire.

[*Copy.*]

ALDERLEY EDGE,
CHESHIRE,
July 30th, 1900.

SIR,

On the 26th inst. I telegraphed from Bakewell a reply to your letter of the 24th inst., as follows :—

> "Letter received. Acceptance of the Albert Medal by me fully implied in my correspondence with the Society, and is now confirmed."

I have nothing to add to this explicit acceptance by me of the Albert Medal of the Society of Arts.

I am,
Faithfully yours,
(Signed) HENRY WILDE.

SIR HENRY TRUEMAN WOOD,
Secretary of the Society of Arts.

[*Copy.*

Society of Arts,
John Street, Adelphi,
London, W.C., *July 31st, 1900.*

Sir,

I have to acknowledge the receipt of your telegram of the 26th, and of your confirmatory letter of the 30th inst. I now, in accordance with my instructions, send you enclosed the Albert Medal awarded to you.

I am, Sir,
Your obedient Servant,
(Signed) H. T. WOOD,
Secretary.

Henry Wilde, Esq., F.R.S.,
The Hurst, Alderley Edge, Cheshire.

[*Copy.*]

Alderley Edge,
Cheshire,
October 24th, 1900.

Sir,

In confirmation of my telegram of the 2nd of August last, I now write to say that the Albert Medal awarded to me by the Society of Arts was duly received. I have, however, to point out that the Medal has been sent contrary to the intimation, given in my letter of July 12th, that it would not be agreeable to me to receive it at the present time. My letter of July 30th, with regard to the acceptance of the Medal, does not bear the construction that has been put upon it with respect to its actual presentation.

Considering that the presentation of the Albert Medal is usually attended with some amount of ceremony, and has not, for some years past, been made to British recipients before the year following the award, the posting of the Medal to me on this occasion is obviously not intended as a compliment, but is a further manifestation of the same spirit that attempted to thrust upon me the award of a medal on terms which I disapproved of.

That the terms of the amended award admitted of no further discussion without stopping the official machinery of the Society, is shown by the fact that the Council retired from office on June 27th, the second day after the amendment of their award, which was published in the Society's Journal on the 29th of that month.

That the amended award, as published in the Report of the Council, should be grudgingly made and dubiously formulated, was only to be expected from the circumstances under which it was obtained. Its actual value is well expressed in an able address delivered by Mr. Arthur Aiken, a former Secretary of the Society of Arts, on the occasion of the annual distribution of the rewards adjudged by the Society, at the hands of the President, H.R.H. the Duke of Sussex, in the following sentence :—" A premium churlishly bestowed is worth just as much as " the gold or silver it consists of, and no more ; it is a mere pecuniary gift which, to " the lowest fractional denomination, may be stated in current coin." *(Trans. Soc. Arts, Vol.* xxxv., *p.* 210*)*. Estimated by the standard defined by the former

estimable and intelligent Secretary of the Society, the value of the Medal awarded to me by the Council is much less than the legal expenses incurred in connection with this unfortunate award, and, consequently, the personal benefit derived from my relations with the Society of Arts is a negative quantity.

With regard to the reflection made in your letter of July 24th, as to the manner in which the award of the Albert Medal has been received by me, it would appear that sufficient account has hardly been taken of my reclamations and observations on the history of the dynamo-electric machine. I will therefore add some further remarks thereon, not so much, however, with the view of enlightening the Council (the *affaire* of the award being now closed), as with the object of placing on record certain facts which may be of use to future historians of electrical science and its application to the Arts.

Although the brothers Siemens nowhere claimed for themselves either the invention of the term *dynamo-electric machine*, or the invention of the *dynamo*, yet, one of them, who was some time President of the Council of the Society of Arts, so popularised both these inventions in the course of his published lectures and addresses that, Prof. W. Pole, in his "Life of Sir William Siemens" (1888, p. 240), was induced, in common with other writers of repute, to believe that the brothers Siemens not only invented the term *dynamo-electric machine*, but also the *dynamo* itself.

The publications of the various scientific and technological societies abundantly show that the term *dynamo-electric machine* was not used by the brothers Siemens until some years after its invention by Brooke in 1867; the established term, *electro-magnetic machine*, being used by them to denote the self-exciting dynamo.

The fifteenth volume of the *Proceedings of the Royal Society*, 1866-1867, contains a clear and precise epitome of the genesis of the dynamo-electric machine. Commencing, in chronological order, with the account of my discovery and inventions, the subsequent experiments of Siemens, Wheatstone, and Ladd, founded upon and inspired by my investigations, are therein described in their respective communications. The presentment made to the Royal Society by C. W. Siemens of the alleged "Conversion of Dynamical into Electrical Force without the aid of Permanent Magnetism," (referred to in terms of approval in the Report of the Council in connection with the award) is in effect a veiled appropriation of Faraday's memorable discovery of the *Conversion of Dynamical into Electrical Force by means of Permanent Magnetism*, as well as of the principle of my discovery, as formulated in the terms of the award to me of the Albert Medal.

The term *dynamo-electric machine,* coined by Brooke, appears for the first time in the same volume of the *Proceedings,* and derived its origin directly from my experimental researches, as already stated in my former letters to the Council.

The specific statement made by Prof. Silvanus P. Thompson, in the course of his Cantor Lectures on "Dynamo-Electric Machinery," *(Journal of the Society of Arts, Vol.* xxxi. *p.* 119, 1882*)* that the name "dynamo-electric machine" was first employed by Werner Siemens in his communication of January 17th, 1867, to the Berlin Academy of Sciences, has no foundation in fact, the term "electro-magnetic machine" being therein employed *(Monatsber. Akad. Wiss. Berlin,* 1867, *p.* 56*).* The same misstatement is also repeated in successive editions of Prof. Thompson's book on "Dynamo-Electric Machinery," 1883—1896.

The most charitable construction that I am able to put upon the action of the Council in formulating the terms of their award to me of the Albert Medal is that, the atmosphere of untruth, with which ignorance and interests of various kinds have surrounded my discoveries and inventions in connection with the dynamo-electric machine for so many years, has effectually prevented the Council from forming any opinion of value on the subject.

Notwithstanding the wrong that the Society of Arts has done me personally, in publishing broadcast in the newspapers and technological journals one of my abstract scientific discoveries as the sole ground of the award of the Albert Medal, it is some satisfaction to me to know that the Society has incidentally been instrumental in disseminating the knowledge of a hyperphysical principle of incommensurableness ruling in the universe, of which principle the indefinite increase of the electric and magnetic forces from quantities indefinitely small is an instance, and also one of a category of similar instances in other departments of science. I have shown elsewhere *(Memoirs of the Manchester Lit. and Phil. Soc., Vol.* xl., 1896*)* that this principle, to which the law of conservation of the physical and chemical forces is logically subordinate, extends through all inorganic and organic nature. The watchful guardians of scientific orthodoxy, however—whose debased mechanical intellects would limit the power of the Infinite, and banish all conscious intelligence and purposefulness (except their own) from the universe—still ignore, or affect to ignore, this generalisation. The Council will look in vain in the records of academic science for any distinct recognition of the principle in the terms so explicitly formulated in their award to me of the Albert Medal. The omission is another striking instance, furnished by history, of exoteric and independent thinkers in

various departments of knowledge, realising obvious and demonstrable truths which are a stumbling-block to esoteric classes, whose understandings are moulded just to the size of a received doctrine.

The service the Society of Arts has thus incidently rendered to philosophy, and indirectly to religion, by the recognition of the incommensurableness of the electric and magnetic forces, may, at some future time, obliterate the sense of wrong that has been done me by the Council in ignoring my inventions and their applications by me to the Arts.

I am,
Faithfully yours,

(Signed) HENRY WILDE.

THE SECRETARY OF THE SOCIETY OF ARTS.

[*Copy.*]

ALDERLEY EDGE,
CHESHIRE,
October 25*th*, 1900.

To the Secretary of the
Institution of Electrical Engineers.

DEAR SIR,

Two years ago the Council of the Institution of Electrical Engineers did me the honour of electing me an Honorary Member of the Institution. Considering the great eminence the Institution has attained, consisting now of between three and four thousand members, together with the fact that I was the only British representative of the class of Honorary Members, I have just reason to think that the exceptional distinction conferred upon me was solely for my discoveries and inventions in connexion with electrical engineering.

The Council of the Society of Arts have, as is now generally known, awarded me the Albert Medal of the Society for the present year. The terms of the award were, however, so inadequate to the circumstances as to deprive the Medal of most of those features of value with which it is generally associated. Nevertheless, the action of the Society has invested the Albert Medal of 1900, with a considerable degree of historical interest, and, in response to the recent invitation of the Council of the Institution for gifts of such objects to form a permanent Museum, I enclose herewith the Medal as a contribution to the collection.

I am also forwarding to you a copy of the correspondence in the matter of the Society of Arts and myself, on the award to me of the Albert Medal, and I have to request that the same may be deposited with the Archives of the Institution for future reference.

I am, Dear Sir,
Yours faithfully,
(Signed) HENRY WILDE.

COPY.

APPENDIX.

Enclosure to Admiralty Letter of 10 : 11 : 76, N.S. $\frac{5470}{9487}$.

Report to the Lords Commissioners of the Admiralty on Wilde's Electro-Magnetic Light in H.M.S. "Minotaur," by Rear-Admiral Sir F. Beauchamp Seymour, K.C.B., Commanding the Channel Squadron, November 10th, 1876.

"1. The Electro-Magnetic Machine, fitted to the 'Minotaur' by Messrs. WILDE & Co., has now "been in use for seven months, and having thoroughly tried it under all circumstances of wind and "weather, including fog, I am enabled to give my testimony to its great value."

"2. I do not consider that a vessel blockading an enemy's port, and obliged by circumstances to "remain at anchor, would be safe without it."

"3. It would be of the utmost use in a night action, and in determining the character of a vessel "approaching the ship, carrying it by night. These points have been amply tested in the Channel "Squadron since November last, when cruising in company or at Night Quarters."

"4. For the ordinary purposes of Navigation it has also its advantages, as while passing through a "narrow channel by night a light can be thrown on either shore; the amount of this, however, depends "much more than would be imagined on the state of the atmosphere at the time."

"5. It is also extremely useful when vessels are approaching or passing each other."

"6. As their Lordships are aware, the 'Parabolic Reflector,' mentioned in your letter of the 11th "Oct., 1875, was not fitted on account of the expense; but the Dioptric Lens seems, so far as I can "judge (not having seen the Reflector in use), to be all that is required."

"7. With regard to its use for signalling purposes, it has been used on several occasions, and the "flashes have been shown, both by the vertical ray and also by obscuring and showing the direct ray of "the light alternately, on the same principle as Colomb's Flashing Light, under which circumstances it "has been found very useful, as illustrated by the fact that on the night of the 19th, H.M.S. 'Black "Prince,' then distant six, and 'Resistance' four miles, readily took in a signal directing them to part "company and proceed to Plymouth."

"8. I may conclude by saying that this Machine is a most useful and valuable invention, and that "I should be very sorry to be without it in any Squadron in which I may have the honour of serving."

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